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EXAMINER

SRIVASTAVA, VIVEK

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,615

Applicant(s)

CHUNG ET AL.

Examiner

Vivek Srivastava

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-14,16-18,20-23,25,26,28-38 and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9-14,16-18,20-23,25,26,28-38 and 40-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7, 14, 17, 18, 33, 34, 38 – 41, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al (US 6,002,394) in view of Lee (US 5,418,903).

Regarding claim 1, Schein discloses an apparatus comprising an OSD graphic data receiver (part of the "television system" as described in column 8, lines 13-21) which receives OSD graphic data from an external source. The external source in the case of Schein is a satellite feed or telecommunications network line (column 5, lines

52-62). Schein also discloses a processor which processes the OSD graphic data (processor 100 of Figure 3; column 9, lines 3-5).

Schein discloses wherein the receiver further comprises a memory which stores the incoming OSD data (column 9, lines 8-9) and a controller (OSD controller; column 8, lines 58-60) which stores the data in memory in response to a storage signal (graphic commands; column 8, lines 8-9) and reads the data in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14).

Schein fails to disclose the claimed wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command inputter operated by a user, and supplies the OSD region to the processor in response to the OSD display signal.

In analogous art, Lee teaches an OSD system with multiple memories. The apparatus comprises a volatile buffer memory and a non-volatile RAM memory (column 3, lines 21-24). The buffer contents are temporary and held only while the OSD (in this case a memo) is being edited, while the RAM stores the memo until a given time whether or not the system is on. The OSD data is stored in the buffer then transmitted to the OSD region (RAM) in response to a replacement signal (column 4, lines 50-54) and supplied to the processor for display in response to a display signal (after transfer the computer "calls the program for indicating storage completion of the memos. This causes display..."; column 4, lines 54-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use a two memory system as shown by Lee to store and display data in the apparatus as taught by Schein. The motivation for doing so would have been to allow the incoming OSD data to be temporarily stored upon transmission until the user could decide whether to permanently keep it or discard it. This would allow the user to select what data they would like to keep without using excessive memory by storing it all on a permanent media. Thus, it would have been obvious to use a volatile/non-volatile memory combination to allow for maximum user customization while using minimum storage capacity.

Regarding claim 2, Schein discloses the apparatus of claim 1 as discussed above, wherein the data receiver selects the OSD data from among a plurality of different types of OSD data located at the external source for display. The receiver of Schein allows the user to select which display to view from a choice of sports information, news, and others (column 14, lines 39-46).

Regarding claim 4, Schein teaches the apparatus of claim 3, wherein the OSD receiver comprises a broadcast television receiver (column 6, lines 37-39) which receives the broadcasting signal including OSD data (column 7, lines 2-5) and outputs a composite video signal including the OSD data (column 9, lines 15-19), a data detector (it is inherent that when the data is transmitted through the VBI of a signal, for example, that a data detector must be present to retrieve that information; column 7, lines 2-5), and a processor which processes the signal to output a composite display signal. Figure 16A shows both an OSD display and a program area display (526). In order for

Art Unit: 2611

this to occur, the data and incoming signal must be processed by a processor (100 of Figure 3).

Regarding claim 6, Schein teaches the apparatus of claim 4, wherein the data detector detects data present in the VBI of the broadcasting signal (column 7, lines 2-5).

Regarding claim 7, Schein discloses the apparatus of claim 6, wherein the OSD data is provided in the form of a closed captioning mode (see examples of VBI data; column 6, lines 55-56).

Regarding claim 14, Schein discloses the apparatus of claim 1, wherein the OSD receiver comprises a tuner (column 6, lines 36-44), a modem connected to a communications network (on-line providers) which downloads the OSD data from an external source (column 13, lines 60-65), a video processor (processor 100 of Figure 3) which outputs a display video signal including the OSD data (Figure 16A). Schein discloses the OSD receiver comprises a memory which stores the OSD data downloaded by the modem (receiver has internal memory, so it is inherent that when the data is downloaded it is stored in that memory at least temporarily before the data is processed and displayed; column 9, lines 6-9), and a controller which stores the data in response to a data storage signal (such as pressing of "Services button"; column 14, lines 39-46) and reading the data from memory in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14).

All remaining limitations have been addressed in claim 1 above.

Regarding claim 17, Schein discloses the apparatus of claim 14, wherein the external OSD data source is an OSD graphic data providing server (connects to server databases through on-line providers; column 13, lines 60-64).

Regarding claim 18, Schein discloses the apparatus of claim 15, wherein the external OSD source is a graphic data providing server (provider database; column 13, lines 60-64), and the controller downloads the via the modem from a home page of the OSD server (page which allows user to download more information, change subscriptions, and offer feedback; column 14, lines 54-61).

Regarding claim 33, Schein teaches a television set receiver ("television system"; column 8, lines 13-21) comprising a receiver (Figure 2; column 6, lines 37-39) to output a composite signal, a video processor for processing the video signal and overlapping the video signal with an OSD for display (Figure 16A shows video signal and OSD on same display screen; column 9, lines 15-19), a data decoder (VBI slicer; column 7, lines 2-5), a memory storing the OSD data (RAM in OSD Controller and Formatter [OSDCF] 124 of Figure 3; column 9, lines 8-9), and a controller (OSDCF 124 of Figure 3; column 8, lines 58-60) which stores the data in memory in response to a storage signal (graphic commands; column 8, lines 8-9) and reads the data in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14). Schein fails to disclose the claimed memory which comprises a buffer region and OSD region, wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command inputter operated by a user, and supplies

the OSD region to the processor in response to the OSD display signal. See claim 1 or reasons of obviousness.

Claim 34 is met by that discussed above.

Claim 38 is met by the discussions above

Regarding claim 40, Schein discloses the method of claim 39, wherein the data source may be a broadcasting station and the step of receiving comprises receiving the data in the broadcast signal (column 6, lines 51-56).

Regarding claim 41, Schein discloses the method of claim 39, wherein the data source may be a data providing server and the receiving comprises receiving the data from the server through the network (column 13, lines 58-65).

Regarding claim 43, Schein discloses the method of claim 40, wherein the displaying comprises overlapping the OSD data with a television signal and displaying the overlapped signal. This is evident in Figure 16A, showing the display featuring both the OSD graphic and the programming signal.

Regarding claim 44, Schein discloses the method of claim 41, wherein the displaying comprises overlapping the OSD data with a television signal and displaying the overlapped signal. This is evident in Figure 16A, showing the display featuring both the OSD graphic and the programming signal.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee, as applied to the claims above, and further in view of Kohn (US 6,570,990).

Art Unit: 2611

Regarding claim 5, Schein teaches the apparatus of claim 3 but fails to disclose wherein the OSD receiver comprises a cathode ray tube (CRT) controller which detects a sync signal from the composite video signal and displays the video signal.

In analogous art, Kohn discloses broadcast receiving hardware which comprises a CRT controller (column 5, lines 63-65). Although Kohn does not explicitly express detecting a sync signal and displaying the signal, it is well-known in the art that drivers that contain a CRT controller which drives a display device must inherently have some type of sync detection function.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the OSD data receiving system of Schein to display the composite video signal on a CRT display. Many consumer display screens (television and computer) are of a CRT format, so it would have been obvious to use this receiver apparatus to drive a CRT format in order to be compatible with the largest number of client devices, thus maximizing potential clients.

Regarding claim 16, the combination of Schein and Kohn teach all limitations of the claim, wherein the receiver comprises a CRT controller as discussed for claim 5 above.

Claim 9 and 20 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee, as applied to the claims above, and further in view of Yoshinobu et al (US 5,686,954).

Regarding claim 9, the combination of Schein and Lee fails to disclose the claimed wherein the buffer region comprises a volatile memory and the OSD region comprises a non-volatile memory.

In analogous art, Yoshinobu also teaches transmitting data from one memory to another. Yoshinobu teaches data is transmitted from a buffer memory (volatile) to a CDROM (non-volatile) (see col 17 lines 7 –22) and teaches reading out data from a buffer memory to a CDROM to always ensure a writing space of more than a predetermined amount of data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Schein and Lee to include the buffer volatile memory and CDROM non-volatile memory to always ensure a writing space and to place the data in a more secure non-volatile memory.

Claim 20 is met by the above discussions.

Claims 10, 21, 22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein (US 6,002,394) in view of Terakado (US 6,311,329).

Regarding claim 10, Schein discloses an apparatus comprising an OSD graphic data receiver (part of the “television system” as described in column 8, lines 13-21) which receives OSD graphic data from an external source. The external source in the case of Schein is a satellite feed or tele-communications network line (column 5, lines 52-62). Schein also discloses a processor which processes the OSD graphic data (processor 100 of Figure 3; column 9, lines 3-5).

Schein discloses wherein the receiver further comprises a memory which stores the incoming OSD data (column 9, lines 8-9) and a controller (OSD controller; column 8, lines 58-60) which stores the data in memory in response to a storage signal (graphic commands; column 8, lines 8-9) and reads the data in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14).

Schein discloses receiving and OSD but fails to disclose the claimed an OSD font ROM which permanently stores fixed OSD graphic data, wherein the controller supplies the OSD graphic data from the memory to the processor in a user mode and supplies the fixed OSD graphic data to the processor in the non user mode.

In analogous art, Terakado teaches a permanent template / layout for an OSD provided on a CDROM (col 5 lines 25 – 40). It would have been obvious modifying Schein to include supplying an OSD which has been permanently stored on a non-volatile CDROM would have enabled an OSD which is readily available and permanent. Therefore, it would have been obvious to modify Schein to include the claimed limitation to enable a readily available and permanent OSD.

The combination of Schein and Terakado provides a default OSD font ROM which permanently stores fixed OSD graphic data and OSD data which is not fixed. The combination of Schein and Terakado fails to teach the claimed user mode and non-user mode. Official Notice is taken it would have been well known in the art to provide a user with 2 modes of operation, which include a user mode and non-user mode for selecting a customized template or layout or default template or layout. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention

was made to modify the combination of Schein and Terakado to include the claimed limitation to provide a user with a plurality of options.

Claim 21 is met by the discussions above.

Claim 22 is met by that discussed above.

Regarding claim 29, Schein discloses an OSD receiver comprises a tuner (column 6, lines 36-44), a modem connected to a communications network (on-line providers) which downloads the OSD data from an external source (column 13, lines 60-65), a video processor (processor 100 of Figure 3) which outputs a display video signal including the OSD data (Figure 16A). Schein discloses the OSD receiver comprises a memory which stores the OSD data downloaded by the modem (receiver has internal memory, so it is inherent that when the data is downloaded it is stored in that memory at least temporarily before the data is processed and displayed; column 9, lines 6-9), and a controller which stores the data in response to a data storage signal (such as pressing of "Services button"; column 14, lines 39-46) and reading the data from memory in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14).

Schein fails to disclose the claimed wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command inputter operated by a user, and supplies the OSD region to the processor in response to the OSD display signal.

In analogous art, Lee teaches an OSD system with multiple memories. The apparatus comprises a volatile buffer memory and a non-volatile RAM memory (column 3, lines 21-24). The buffer contents are temporary and held only while the OSD (in this case a memo) is being edited, while the RAM stores the memo until a given time whether or not the system is on. The OSD data is stored in the buffer then transmitted to the OSD region (RAM) in response to a replacement signal (column 4, lines 50-54) and supplied to the processor for display in response to a display signal (after transfer the computer "calls the program for indicating storage completion of the memos. This causes display..."; column 4, lines 54-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use a two memory system as shown by Lee to store and display data in the apparatus as taught by Schein. The motivation for doing so would have been to allow the incoming OSD data to be temporarily stored upon transmission until the user could decide whether to permanently keep it or discard it. This would allow the user to select what data they would like to keep without using excessive memory by storing it all on a permanent media. Thus, it would have been obvious to use a volatile/non-volatile memory combination to allow for maximum user customization while using minimum storage capacity.

Claims 11 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee, and further in view of Terakado (US 6,311,329).

Regarding claim 11, the combination of Schein and Lee teaches the apparatus of claim 8 as described above. The combination fails to disclose, however, an OSD font ROM and the ability of the system to operate in a user or non-user mode.

Schein discloses receiving and OSD but fails to disclose the claimed an OSD font ROM which permanently stores fixed OSD graphic data, wherein the controller supplies the OSD graphic data from the memory to the processor in a user mode and supplies the fixed OSD graphic data to the processor in the non user mode.

In analogous art, Terakado teaches a permanent template / layout for an OSD provided on a CDROM (col 5 lines 25 – 40). It would have been obvious modifying Schein to include supplying an OSD which has been permanently stored on a non-volatile CDROM would have enabled an OSD which is readily available and permanent. Therefore, it would have been obvious to modify Schein to include the claimed limitation to enable a readily available and permanent OSD.

The combination of Schein and Terakado provides a default OSD font ROM which permanently stores fixed OSD graphic data and OSD data which is not fixed. The combination of Schein and Terakado fails to teach the claimed user mode and non-user mode. Official Notice is taken it would have been well known in the art to provide a user with 2 modes of operation, which include a user mode and non-user mode for selecting a customized template or layout or default template or layout. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Schein and Terakado to include the claimed limitation to provide a user with a plurality of options.

Claim 42 is met by the discussions above.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee and further in view of Kohn.

Regarding claim 12, the combination of Schein and Lee teaches the apparatus of claim 8 as described above. Schein discloses a memory which stores the incoming OSD data (column 9, lines 8-9). The combination fails to disclose, however, wherein the data is received in an RGB pattern and stored in an RGB pattern.

In analogous art, Kohn discloses broadcast receiving hardware that receives input signals in RGB (column 7, line 44) or YCC (chrominance/luminance; column 7, line 36). The digital broadcast signal (column 5, lines 1-5) then goes through a digital-to-analog converter (DAC 302 of Figure 3) and generates an analog RGB output.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to convert and store the incoming OSD signal in an RGB pattern for use in the system of Schein and Lee. The motivation for doing so would have been to store the data in the form which it would most likely be used, as RGB pattern data is needed to drive CRT video displays, the benefit being for faster retrieval. If the conversion is done in advance, before retrieval is necessary, OSD data can be presented to the user faster and in a seamless manner. Therefore, it would have been obvious to store the incoming RGB data in RGB form in order to achieve faster processing.

Art Unit: 2611

Regarding claim 13, the combination of Schein, Lee, and Kohn disclose all limitations of the claim as stated for claim 12 above. Kohn discloses that the incoming broadcast signal is digital data; therefore it would inherently be in binary or hexadecimal format.

Claims 23, 25, 26 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee and Pavley (US 6,317,141).

Regarding claim 23, Schein discloses an OSD receiver comprises a tuner (column 6; lines 36-44), a modem connected to a communications network (on-line providers) which downloads the OSD data from an external source (column 13, lines 60-65), a video processor (processor 100 of Figure 3) which outputs a display video signal including the OSD data (Figure 16A). Schein discloses the OSD receiver comprises a memory which stores the OSD data downloaded by the modem (receiver has internal memory, so it is inherent that when the data is downloaded it is stored in that memory at least temporarily before the data is processed and displayed; column 9, lines 6-9), and a controller which stores the data in response to a data storage signal (such as pressing of "Services button"; column 14, lines 39-46) and reading the data from memory in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14).

Schein fails to disclose the claimed wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command

Art Unit: 2611

inputter operated by a user, and supplies the OSD region to the processor in response to the OSD display signal.

In analogous art, Lee teaches an OSD system with multiple memories. The apparatus comprises a volatile buffer memory and a non-volatile RAM memory (column 3, lines 21-24). The buffer contents are temporary and held only while the OSD (in this case a memo) is being edited, while the RAM stores the memo until a given time whether or not the system is on. The OSD data is stored in the buffer then transmitted to the OSD region (RAM) in response to a replacement signal (column 4, lines 50-54) and supplied to the processor for display in response to a display signal (after transfer the computer "calls the program for indicating storage completion of the memos. This causes display..."; column 4, lines 54-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use a two memory system as shown by Lee to store and display data in the apparatus as taught by Schein. The motivation for doing so would have been to allow the incoming OSD data to be temporarily stored upon transmission until the user could decide whether to permanently keep it or discard it. This would allow the user to select what data they would like to keep without using excessive memory by storing it all on a permanent media. Thus, it would have been obvious to use a volatile/non-volatile memory combination to allow for maximum user customization while using minimum storage capacity.

Art Unit: 2611

Schein does not disclose, however, that the receiver comprises a camera. Pavley teaches a video camera (DVC; column 1, lines 56-61) which delivers the output frame in a YCC (chrominance/luminance) format (column 6, lines 29-32).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to apply the video camera as taught by Washino to the receiver system as taught by Schein. The suggestion for doing so would have been to update the OSD data on the camera to include more timely or personalized information to be displayed on the screen prior to recording. Therefore, it would have been obvious to extend the OSD receiver system of Schein to include in the receiver a video camera.

Regarding claim 25, the combination of Schein, Lee and Pavley teaches the apparatus of claim 23, wherein Schein discloses the external OSD data source is an OSD graphic data providing server (connects to server databases through on-line providers; column 13, lines 60-64).

Regarding claim 26, the combination of Schein, Lee and Pavley teaches the apparatus of claim 24, wherein Schein discloses the external OSD source is a graphic data providing server (provider database; column 13, lines 60-64), and the controller downloads the via the modem from a home page of the OSD server (page which allows user to download more information, change subscriptions, and offer feedback; column 14, lines 54-61).

Regarding claim 31, the combination of Schein and Pavley teaches the apparatus of claim 24, wherein Pavley discloses a deck which records the display video

Art Unit: 2611

signal on a recording medium (user initiated video capture to record digital video; column 5, lines 47-50).

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee and Pavley and further in view of Yoshinobu.

Regarding claim 28, the combination of Schein, Lee and Pavley teaches the apparatus of claim 24, but fails to disclose wherein the memory comprises a buffer region and an OSD region, and wherein the controller stores the data initially in the buffer region, then transfers it to the OSD region, then processes it for display.

In analogous art, Yoshinobu also teaches transmitting data from one memory to another. Yoshinobu teaches data is transmitted from a buffer memory (volatile) to a CDROM (non-volatile) (see col 17 lines 7 –22) and teaches reading out data from a buffer memory to a CDROM to always ensure a writing space of more that a predetermined amount of data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Schein, Lee and Palvey to include the buffer volatile memory and CDROM non-volatile memory to always ensure a writing space and to place the data in a more secure non-volatile memory.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee and Pavley and further in view of Terakado.

Regarding claim 30, the combination of Schein, Pavley, and Lee teaches the apparatus of claim 27 as described above. The combination fails to disclose, however, an OSD font ROM and the ability of the system to operate in a user or non-user mode.

Schein discloses receiving and OSD but fails to disclose the claimed an OSD font ROM which permanently stores fixed OSD graphic data, wherein the controller supplies the OSD graphic data from the memory to the processor in a user mode and supplies the fixed OSD graphic data to the processor in the non user mode.

In analogous art, Terakado teaches a permanent template / layout for an OSD provided on a CDROM (col 5 lines 25 – 40). It would have been obvious modifying Schein to include supplying an OSD which has been permanently stored on a non-volatile CDROM would have enabled an OSD which is readily available and permanent. Therefore, it would have been obvious to modify the combination of Schein, Lee and Pavley to include the claimed limitation to enable a readily available and permanent OSD.

The combination of Schein, Lee, Palvey and Terakado provides a default OSD font ROM which permanently stores fixed OSD graphic data and OSD data which is not fixed. The combination of Schein, Lee, Palvey and Terakado fails to teach the claimed user mode and non-user mode. Official Notice is taken it would have been well known in the art to provide a user with 2 modes of operation, which include a user mode and non-user mode for selecting a customized template or layout or default template or layout. Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to modify the combination of Schein, Lee, Pavley and Terakado to include the claimed limitation to provide a user with a plurality of options.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee and Pavley and further in view of Robinson (IEEE Publication, "A High-Quality Switched FM Video System").

Regarding claim 32, the combination of Schein, Lee and Pavley teaches the apparatus of claim 23 as noted above. Schein also discloses a memory which stores the OSD data downloaded by the modem (receiver has internal memory, so it is inherent that when the data is downloaded it is stored in that memory at least temporarily before the data is processed and displayed; column 9, lines 6-9), and a controller which stores the data in response to a data storage signal (such as pressing of "Services button"; column 14, lines 39-46) and reading the data from memory in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14), as well as a VCR deck for recording video display signals (VCRs 64 and 36 of Figure 1; column 5, lines 20-23). In addition, Schein discloses that the OSD signal is presented to the processor in RGB format (column 9, lines 10-11), and teaches the ability of the receiver to overlap the video signal and the OSD signal as seen in Figures 17B and 17C. Pavley discloses that the video signal processed by the camera is done so in YCC (luminance and chrominance) format (converted by the DSP into CCIR streaming video which uses luminance and chrominance data; column 5, lines 23-35). The combination fails to disclose, however, FM-modulating the overlapped signal.

Robinson teaches FM-modulating video signals for transmission. See section entitled "System K" on page 54 of Robinson.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modulate the composite video signal developed by the combination of Schein, Lee and Pavley using FM modulation. The suggestion for doing so would have been to minimize component costs, as "the use of FM allows the use of inexpensive optoelectronic devices in the link." See page 54, fourth paragraph under section heading "System K". This would allow for a high-quality, inexpensive link between the camera of Pavley, and the display device and recording deck of Schein. Therefore, it would have been obvious to minimize costs by FM-modulating the signal, a combination of the RGB on-screen display signal and the YCC video signal.

Claims 35 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Needham and Lee.

Regarding claim 35, Schein discloses a video processor for processing the video signal and overlapping the video signal with an OSD for display (Figure 17B shows video signal and OSD on same display screen; column 9, lines 15-19), a modem (modem 72 of Figure 2) connected to a communications network (on-line providers) which downloads the OSD data from an external source (column 13, lines 60-65), a memory storing data downloaded via the modem (receiver has internal memory, so it is inherent that when the data is downloaded it is stored in that memory at least temporarily before the data is processed and displayed; column 9, lines 6-9), a deck

Art Unit: 2611

recording the display video signal (VCRs 64 and 36 of Figure 1; column 5, lines 20-23), a controller storing the OSD data in response to an downloading signal (user input, e.g. "Services Button"; column 14, lines 39-46) and reading the data from memory in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14). Note: Schein discloses that the invention may be implemented on a PC, PCTV, television, or television connected to a set-top box. The "television system" refers to the requisite hardware and encompasses all of these physical embodiments. Schein does not disclose, however, that the receiver comprises a web camera.

Needham discloses a web camera system, consisting of a video camera, PC, and web server (Figure 1; column 1, lines 22-25). This system outputs a video signal to a PC, and allows the user to add OSD features such as time stamping and text additions to the captured image (column 1, lines 49-54) for when it is uploaded to the network (26-28).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the system taught by Schein and Pavley to encompass a web camera as the video source. The motivation for doing so would have been to allow the user to update available OSD information to include in their image to be broadcast across a network via a common web camera. This would allow the user to include timely and personalized information along with their images, making the product more appealing to the public. Therefore, it would have been obvious to incorporate the web camera of Needham into the system of Schein and Pavley to create a web cam system with updatable graphic overlays.

Art Unit: 2611

Schein fails to disclose the claimed wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command inputter operated by a user, and supplies the OSD region to the processor in response to the OSD display signal.

In analogous art, Lee teaches an OSD system with multiple memories. The apparatus comprises a volatile buffer memory and a non-volatile RAM memory (column 3, lines 21-24). The buffer contents are temporary and held only while the OSD (in this case a memo) is being edited, while the RAM stores the memo until a given time whether or not the system is on. The OSD data is stored in the buffer then transmitted to the OSD region (RAM) in response to a replacement signal (column 4, lines 50-54) and supplied to the processor for display in response to a display signal (after transfer the computer "calls the program for indicating storage completion of the memos. This causes display..."; column 4, lines 54-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use a two memory system as shown by Lee to store and display data in the apparatus as taught by Schein. The motivation for doing so would have been to allow the incoming OSD data to be temporarily stored upon transmission until the user could decide whether to permanently keep it or discard it. This would allow the user to select what data they would like to keep without using excessive memory by storing it all on a permanent media. Thus, it would have been obvious to

use a volatile/non-volatile memory combination to allow for maximum user customization while using minimum storage capacity.

Regarding claim 45, the combination of Schein and Needham disclose all limitations of the claim, wherein Schein teaches the apparatus of claim 41 as well as overlapping the OSD data with an image signal and displaying that overlapped signal (Figure 17B) and Needham teaches receiving an object through a lens (in this case, a web camera).

Claim 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Lee, and further in view of Naim (US 6,694,200).

Regarding claim 36, Schein discloses an apparatus comprising an OSD graphic data receiver (part of the "television system" as described in column 8, lines 13-21) which receives OSD graphic data from an external source. Schein also discloses a processor which processes the OSD graphic data (processor 100 of Figure 3; column 9, lines 3-5). He also discloses wherein the receiver further comprises a memory which stores the incoming OSD data (column 9, lines 8-9) and a controller (OSD controller; column 8, lines 58-60) which stores the data in memory in response to a storage signal (graphic commands; column 8, lines 8-9) and reads the data in response to a display signal (displayed based on state of user input interface; column 9, lines 11-14). Schein does not disclose, however, that the receiver is an MP3 player.

Naim teaches an MP3 player (portable device, plays digital media files; column 2, lines 40-52) that downloads data and program files from an external source (personal

Art Unit: 2611

computer; column 8, lines 29-33). The programs downloaded from the PC are executed to provide visual feedback and prompts on the display, making the files OSD data (column 11, lines 42-44).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to apply the OSD retrieval system as taught by Schein to a portable audio device, such as an MP3 player. The motivation for doing so would have been to allow the user to obtain select files and their accompanying information from a larger personal media library and create a personal playlist on the portable personal media device. Therefore, it would have been obvious to apply the OSD retrieval system of Schein to a portable MP3 player, with the response of the display of the player being based on the information and data received from the personal computer.

Schein fails to disclose the claimed wherein the controller stores the OSD graphic data in the buffer region and stores the OSD graphic data from the buffer region in the OSD region in response to a replacement signal received from a command inputter operated by a user, and supplies the OSD region to the processor in response to the OSD display signal.

In analogous art, Lee teaches an OSD system with multiple memories. The apparatus comprises a volatile buffer memory and a non-volatile RAM memory (column 3, lines 21-24). The buffer contents are temporary and held only while the OSD (in this case a memo) is being edited, while the RAM stores the memo until a given time whether or not the system is on. The OSD data is stored in the buffer then transmitted to the OSD region (RAM) in response to a replacement signal (column 4, lines 50-54)

Art Unit: 2611

and supplied to the processor for display in response to a display signal (after transfer the computer "calls the program for indicating storage completion of the memos. This causes display..."; column 4, lines 54-58).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to use a two memory system as shown by Lee to store and display data in the apparatus as taught by Schein. The motivation for doing so would have been to allow the incoming OSD data to be temporarily stored upon transmission until the user could decide whether to permanently keep it or discard it. This would allow the user to select what data they would like to keep without using excessive memory by storing it all on a permanent media. Thus, it would have been obvious to use a volatile/non-volatile memory combination to allow for maximum user customization while using minimum storage capacity.

Regarding claim 37, the combination of Schein and Naim teaches the apparatus of claim 36 as noted above, wherein the external source of data is a personal computer (column 8, lines 29-33).

Contact Information

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Banker et al. (US 5,579,057) discloses a networked receiver which allows the user to update a font library via modem or broadcast signal.
- b. Ryu (US 6,226,047) discloses an OSD receiver and generator.

Art Unit: 2611

- c. Land (US2002/0112180) discloses a web cam with OSD features.
- d. Inoue et al. (US 6,580,462) discloses a receiver with a dual memory system, a volatile buffer region and a non-volatile OSD region.
- e. Chang (US 5,181,113) discloses a receiver and OSD display system.
- f. Naito et al. (US 5,623,316) discloses an on screen display apparatus with a font ROM.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (571) 272-7304. The examiner can normally be reached on Monday – Friday from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272 – 7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vs 6/6/05



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